

December-17-13 9:17:48 AM

Item ID: D3016-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Seat Frame Assembly

Stop *NS2*

Start Date: 12/19/13 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 12/19/13 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLS Date: 13-12-18

Tooling: _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3016	RevA / DEO A-1

100 Weld per dwg A/R 4130 rod Batch: M77925 0.00
 100 Large Fab

100

Large Fab

Large Fab

Memo

0.00

1-Cut all tubes as per Dwg D3016

2-Deburr

3-Assemble tubes, fittings and weld as per Dwg D3016 using welding jig
DT8597

4-Transfer drill holes from D3017-041 and D3021-041 in seat frame D3016-041

5- Assemble brackets and gusset per dwg and weld

110	QC9- Inspect visual per QSI004- Fusion Welds	0.00
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110

QC

Quality Control

Memo

0.00

DAS
9

9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other _____ _____ _____
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Page 2

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① 14.01.24

DAS
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DAS
36
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Page 3

1x _____ 14/01/27 DAS 36 9-89

MLJ 140127

14-01-27

DQA: _____ Date: _____



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Picklist Print

December-17-13 9:17:47 AM

Page 1

Work Order ID: 110186
Parent Item: D3016-041
Parent Item Name: Seat Frame Assembly

Start Date: 12/19/13
Start Qty: 1.00

Required Date: 12/19/13
Required Qty: 1.00

Comments: IPP A01.09.19New issueECIPP RevB: as per revB DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4130NT0.750W.049 4130 RD Tube .750 x.049W		Purchased	No			100	f	216.2952	4.3	5		14-1-20	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT033		216.2951893							
				123339		2.1217893							
				125252		7.7164							
				125313		85.284							
				m127111		121.173							
M4130NT0.500W.049 4130 RD Tube .500 x.049W		Purchased	No			100	f	129.1260	4.3	5		14-1-20	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT032		129.126							
				121025		1.82							
				123339		16.596							
				124293		19.71							
				m127111		91							
M4130NT1.000W.120 4130 RD Tube 1.00 x .120wall		Purchased	No			100	f	32.2325	1.5	2		14-1-20	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT033		32.2325							
				124293		9.71							
				m126545		22.5225							
D3016-17 Gusset		Manufactured	No			100	Each	30.0000	2	2		14-1-23	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA002		30							
				106749		30							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Picklist Print

December-17-13 9:17:47 AM

Page 2

Work Order ID: 110186
Parent Item: D3016-041
Parent Item Name: Seat Frame Assembly

Start Date: 12/19/13 Required Date: 12/19/13
Start Qty: 1.00 Required Qty: 1.00

D3016-13 Manufactured No 100 Each 5.0000 2 2 14-1-22
Bracket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
110111X WA001	5	
100818	5	

D3016-15 Manufactured No 100 Each 13.0000 2 2 14-1-23
Gusset

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
WA001	7	
107553	4	
107554	2	
95695	1	
WA002	6	
107933	6	

D3020-1 Manufactured No 100 Each 30.0000 4 4 14-1-22
Fitting

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
WA002	30	
106789	15	
107909	15	

109928 X4

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Shop Packet Print

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DQA: _____ Date: _____



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DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3016	REV. A SHEET 1 OF 3
DATE 01.05.18		TITLE SEAT FRAME ASSEMBLY	SCALE NTS
A	01.05.18	NEW ISSUE	

QTY	PART NUMBER	DESCRIPTION	MATERIAL
X	D3016-041	SEAT FRAME ASSEMBLY	N/A
1	D3016-1	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
2	D3016-3	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
1	D3016-5	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
2	D3016-7	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
1	D3016-9	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-11	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-13	BRACKET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-15	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-17	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
2	D3020-1	FITTING	N/A

NOTES

- 1) WELD PER DART QSI 004
- 2) ON SHEET METAL PARTS, BREAK ALL UNMARKED CORNERS 0.020-0.040
- 3) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

110186 M.C.S
13-12-18

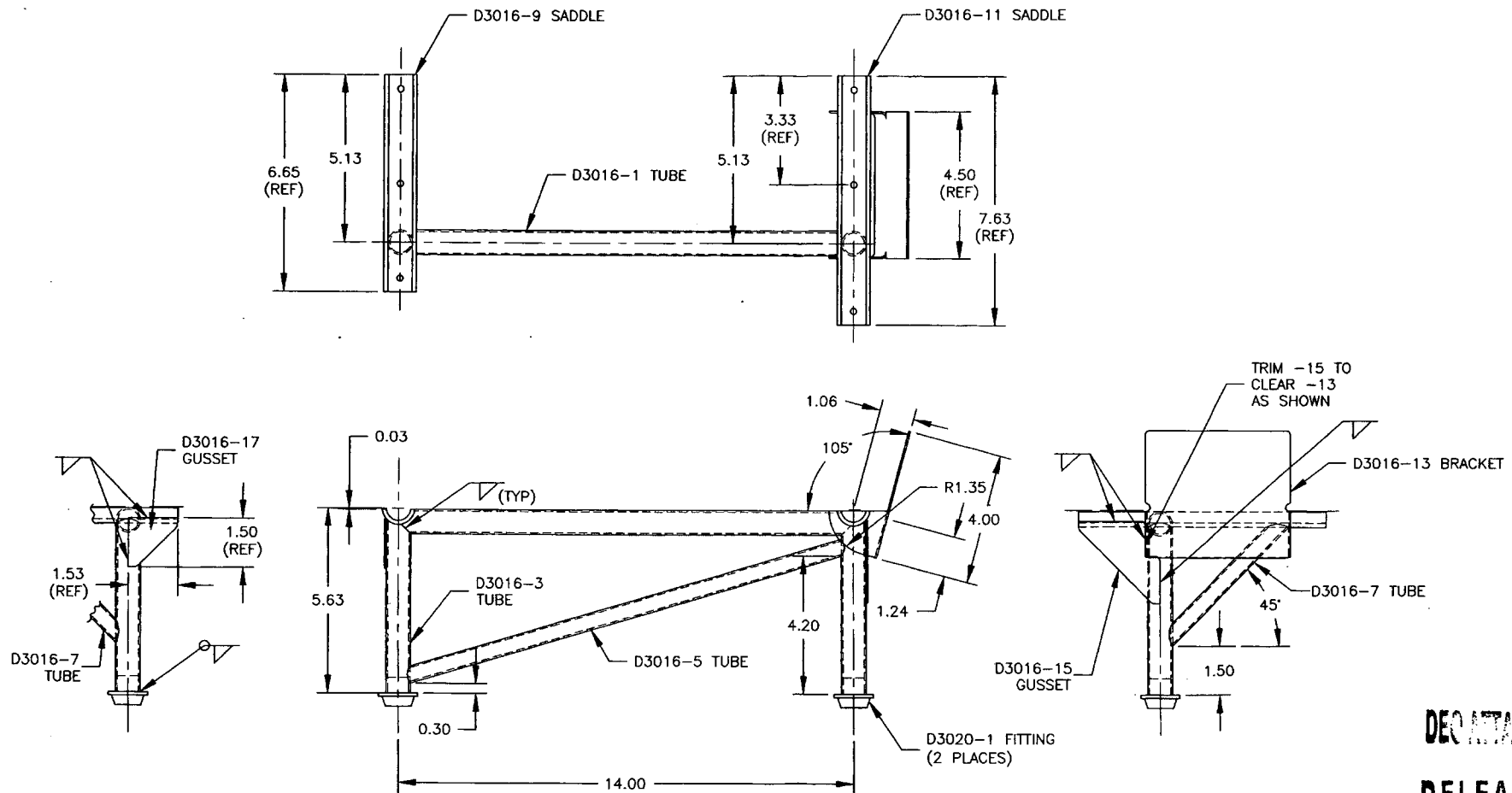
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RELEASED
01.05.30

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D3016-041 SEAT FRAME ASSEMBLY



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01.05.30

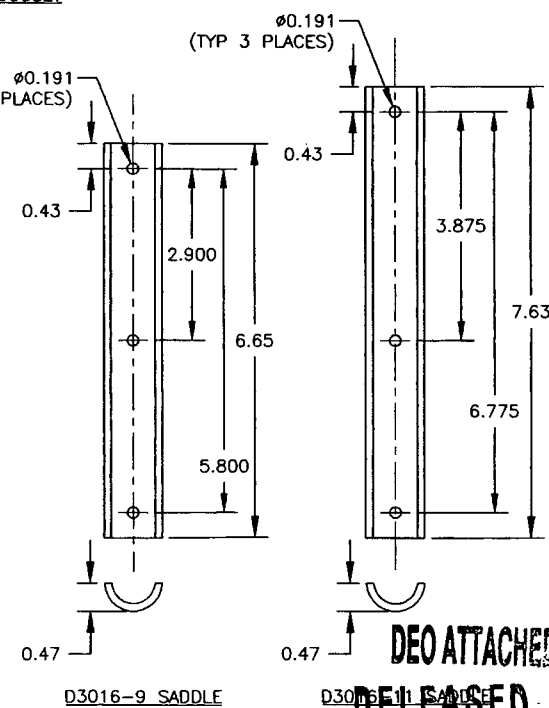
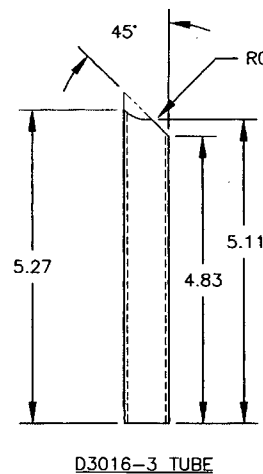
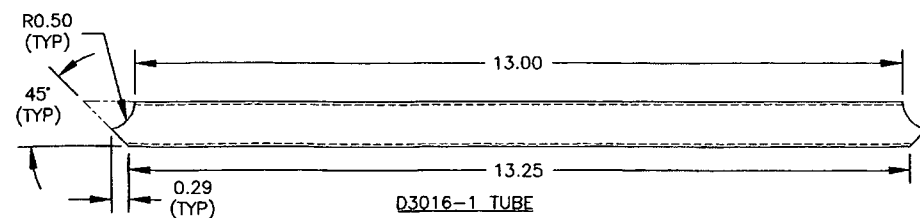
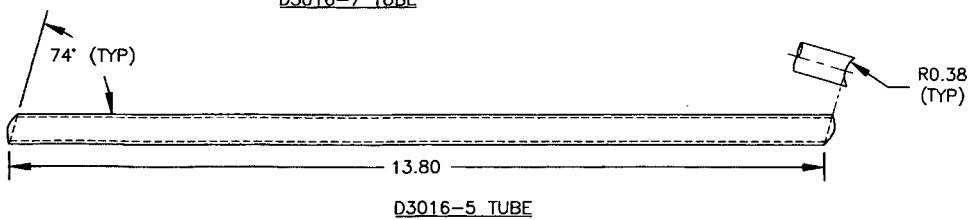
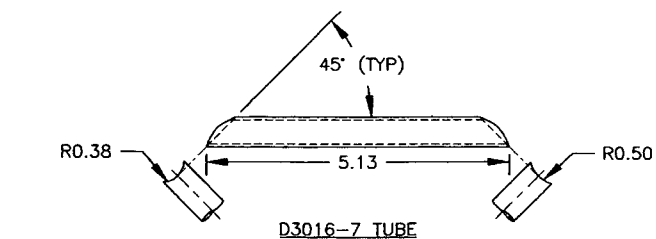
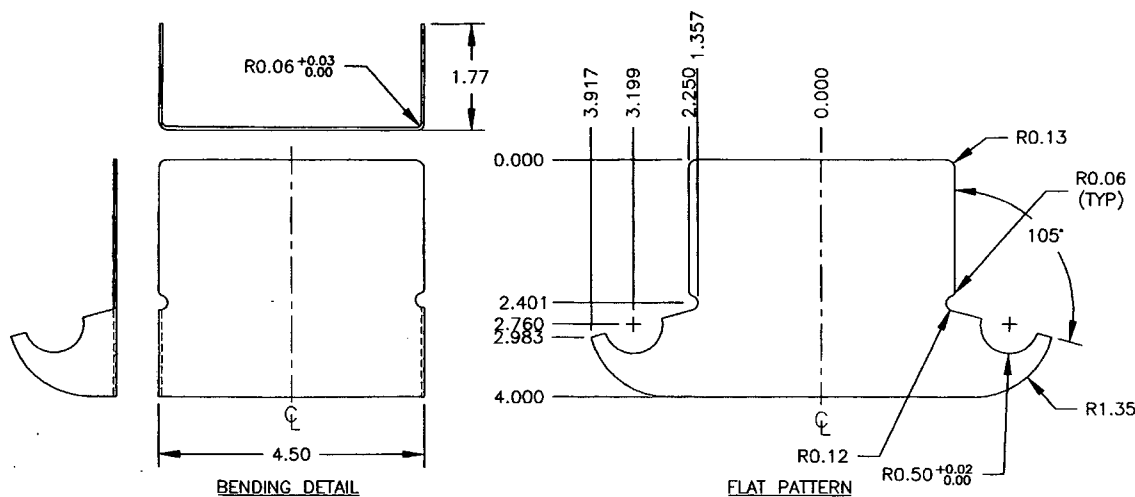
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DESIGN
UP
CHECKED
APPROVED
DATE
01.05.18

DRAWN BY
UP
APPROVED
DATE

DART	DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA
DRAWING NO. D3016	REV. A SHEET 2 OF 3
TITLE SEAT FRAME ASSEMBLY	SCALE 1:3



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DESIGN	CP	DRAWN BY	CP	DART	DART AEROSPACE LTD. WILMINGTON, ONTARIO, CANADA
CHECKED	★	APPROVED	★	DRAWING NO. D3016	REV. A
DATE	01.05.18	TITLE	SEAT FRAME ASSEMBLY	SHEET 3 OF 3	SCALE 1:2

DEO ATTACHED
RELEASED
9.05.30

DRAWING NO. D3016	TITLE SEAT FRAME ASSEMBLY	REV. A	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D3016-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>1</i>	CHECKED <i>UP</i>	MFG. APPR. <i>RE</i>	APPROVED <i>WAP</i>	DE APPR. <i>#</i>		
DATE 10.01.29	DATE 10.01.29	DATE 10.01.29	DATE 10.01.29	DATE 10.01.29		

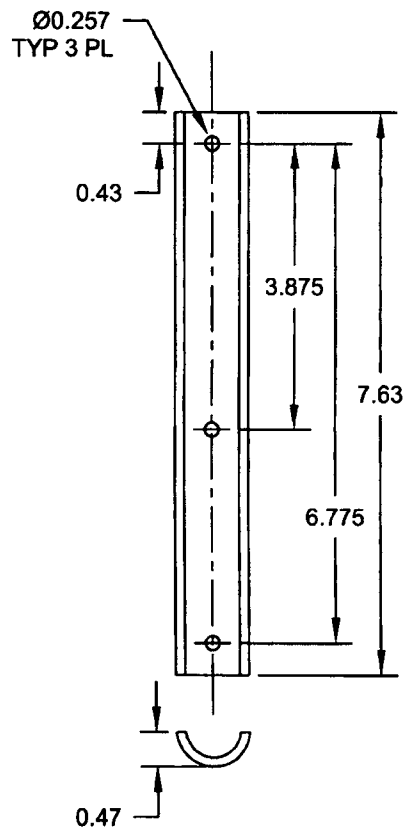
PURPOSE:

TO REVISE D3016-11 SADDLE'S HOLE SIZES

CHANGE:

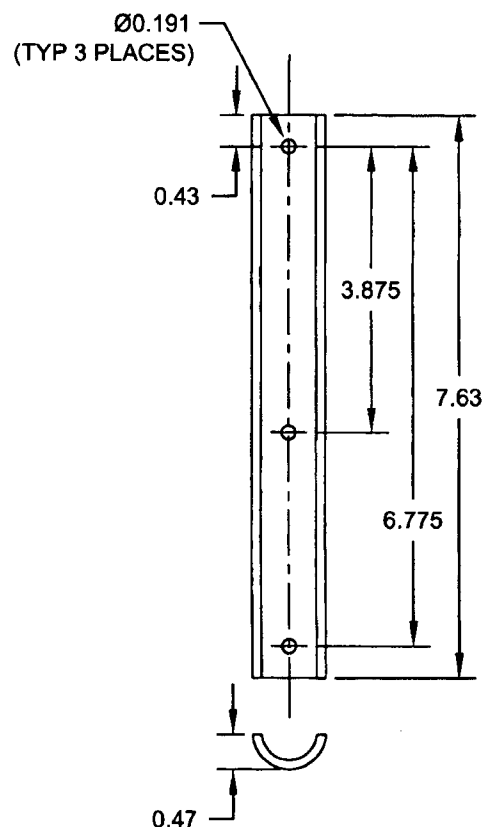
DETAIL D3016-11 SADDLE (SHEET 3): Ø0.257 TYP 3 PL WAS Ø0.191 (TYP 3 PLACES) AS SHOWN:

IS:



D3016-11 SADDLE

WAS:



D3016-11 SADDLE